EverFocus

Security System

2004-First Edition

www.everfocus.com

EverFocusing on Tomorrow, Caring for today!

Quality, Competitiveness, and Innovation are words that have become synonymous with EverFocus Corporation. We have worked diligently to ensure that these words remain a true description of our products. Here at EverFocus, we have challenged ourselves to bring change to the industry through rigorous product testing, 100% customer satisfaction, and revolutionary ideas. We have established EverFocus as a well recognized brand in the security industry. EverFocus is the symbol of quality and reliability, and product of good value.

" EverFocus on Tomorrow, Caring for Today!" is a true description of EverFocus and our employees. We are constantly trying to redefine our role in the marketplace and the world. Our goal is for every product that we manufacture to be easily installed with minimal maintenance. Our extensive warranty is a testimony to the quality that we achieve on all of our products.

Here at EverFocus we take one word to heart when describing our company as a whole: Focused. We are focused on your needs, on providing the industry with great products, and on innovation. When it comes to security equipment, go with the name you trust; go with the name that is focused on your company. Thank you for your continued support. We look forward to serving all of your security needs for years to come.

"EverFocus Electronics Corp.-A Partner For Growth"

The focus of our mission is to grow with our customers, vendors, employees, and shareholders. Our future is closely linked to the success of these working partners.

Dr. John Lee/Chairman

INDEX

Black and White Cameras ---------- 1

Color Cameras ---------- 7

Black and White Video Processors ---------- 15

Color Video Processors ---------- 18

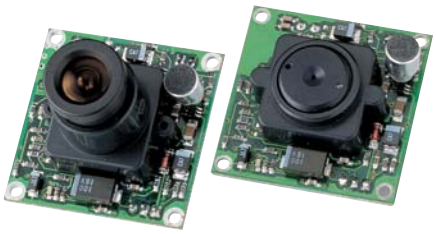
Digital Video Recorders ---------- 21

Peripherals ---------- 31

CCD Camera Icon Support Table ---------- 35

EB110

1/3" Black & White Camera Module



B/W EIA, CCIR | ES 1/100,000 | BLC ON | AGC ON | DC +12V

Specifications

Video format:	EIA or CCIR
Picture element:	510 x 492 (EIA); 500 x 580 (CCIR)
Horizontal resolution:	420 TV lines
Sensitivity:	0.04 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	Yes
Auto gain control:	On
Electronic shutter:	1/60(1/50) ~ 1/100,000 Sec.
Sync. mode:	Internal Sync.
Power source:	12VDC ±10%, 150mA
Dimension:	32(W) x 32(H) x 23(D) mm
Lens:	Board lens f=3.6mm, F=2.0 (Optional 2.5/4.3/6.0/8.0/12.0/16.0mm) Pinhole lens(3.7/5.5mm)
Weight:	30g

Ordering Information:

EB110/E-3	B/W board camera with standard 3.6mm lens. To order additional lenses, replace the last number with the first digit(s) of the lens desired: 2.5mm (E-2), 4.3mm (E-4), 6.0mm (E-6), 8.0mm (E-8), 12.0mm (E-12) and 16.0mm (E-16)
EB110/E-3P	B/W board camera with standard 3.7mm pinhole Lens. For 5.5mm lens use E-5P

EM100

1/3" Black & White Metal Case Camera

B/W EIA, CCIR | ES 1/100,000 | BLC ON | AGC ON | DC +12V

Specifications

Video format:	EIA or CCIR
Picture element:	510 x 492 (EIA); 500 x 580 (CCIR)
Horizontal resolution:	420 TV lines
Sensitivity:	0.04 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	Yes
Auto gain control:	On
Electronic shutter:	1/60(1/50) ~ 1/100,000 Sec.
Sync. mode:	Internal Sync.
Power source:	12VDC ±10%, 150mA
Dimension:	41(W) x 60(H) x 31(D) mm
Lens:	Board lens f=3.6mm, F=2.0 (Optional 2.5/4.3/6.0/8.0/12.0/16.0mm) Pinhole lens(3.7/5.5mm)
Weight:	110g

Ordering Information:

EM100/E-3	Metal case camera with standard 3.6mm lens. To order additional lenses, replace the last number with the first digit(s) of the lens desired: 2.5mm (E-2), 4.3mm (E-4), 6.0mm (E-6), 8.0mm (E-8), 12.0mm (E-12) and 16.0mm (E-16)
EM100/E-3P	Metal case camera with standard 3.7mm pinhole Lens. For 5.5mm lens use E-5P

ED100

1/3" Black & White Mini Dome Camera

B/W EIA, CCIR | ES 1/100,000 | BLC ON | AGC ON | DC +12V

Specifications

Video format:	EIA or CCIR
Picture element:	510 x 492 (EIA); 500 x 580 (CCIR)
Horizontal resolution:	420 TV lines
Sensitivity:	0.04 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	Yes
Auto gain control:	On
Electronic shutter:	1/60(1/50) ~ 1/100,000 Sec.
Sync. mode:	Internal Sync.
Power source:	12VDC ±10%, 150mA
Dimension:	108 (O. D.) mm x 80 (H) mm
Lens:	Board lens f=3.6mm, F=2.0 (Optional 2.5/4.3/6.0/8.0/12.0/16.0mm)
Weight:	330g

Ordering Information:

ED100/E-3B Dome camera with standard 3.6mm lens and black base and Sony CCD chip. To order additional lenses, replace the last number with the first digit(s) of the lens desired: 2.5mm (E-2B), 4.3mm (E-4B), 6.0mm (E-6B), 8.0mm (E-8B), 12.0mm (E-12B) and 16.0mm (E-16B). Change the last letter to reflect the color (i.e., B = Black, W = White)

ESD120

1/3" Black & White Mini Dome Camera

B/W EIA, CCIR | ES 1/100,000 | BLC ON | AGC ON | DC +12V

Specifications

Video format:	EIA or CCIR
Picture element:	510 x 492 (EIA); 500 x 580 (CCIR)
Horizontal resolution:	420 TV lines
Sensitivity:	0.04 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	Yes
Auto gain control:	On
Electronic shutter:	Up to 1/100,000 Sec.
Sync. mode:	Internal Sync.
Power source:	12VDC ±10%, 150mA
Dimension:	150 (O. D.) mm x 50 (H) mm
Lens:	Board lens f=4.3mm, F=2.0 (Optional 6.0/8.0mm)
Weight:	283g

Ordering Information:

ESD120/E-4 Fire detector covert camera with one 4.3mm lens. Change the last number to reflect which lens is preferred: 6.0mm (E-6), 8.0mm (E-8)

Additional Up to four cameras can be placed inside this unit. Additional cameras can be ordered as ESB110/E-4, 6 or 8

EX100

1/3" Black & White CCD Camera

B/W EIA, CCIR | ES 1/10,000 | A.I. VD/DD | BLC ON/OFF | AGC ON/OFF | L.L AUTO/OFF | AC/DC 24V/12V

Specifications

Video format:	EIA or CCIR
Picture element:	510 x 492 (EIA); 500 x 580 (CCIR)
Horizontal resolution:	420 TV lines
Sensitivity:	0.04 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On /Off switch
Auto gain control:	On /Off switch
Electronic shutter:	1/60 (1/50) ~ 1/10,000
Auto IRIS:	DD / VD switchable
Sync. mode:	Internal Sync.: DC power or LL off. Line-Locked: AC power with LL Auto
Phase Control:	V-Phase 0~200°
Lens mount :	C/CS Mount
Power source:	12VDC±10%, 150mA or 24VAC±10%, 150mA
Dimension:	40(W) x 45(H) x 95(D) mm
Weight:	280g

Ordering Information:

EX100	B/W mid-resolution color box style camera

* Lenses sold separately. Please see page 32 for available lenses.

EQ120

1/3" Low Lux Black & White Digital Camera

B/W EIA, CCIR | ES ON/OFF | A.I. VD/DD SW | BLC ON/OFF | AGC ON/OFF | L.L AUTO/OFF | AC/DC 24V/12V | AC 90V~265V

Specifications

Video format:	EIA or CCIR
Picture element:	510 x 492 (EIA); 500 x 580 (CCIR)
Horizontal resolution:	420 TV lines
Sensitivity:	0.01 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On /Off switch
Auto gain control:	On /Off switch
Electronic shutter:	1/60 (1/50) ~ 1/100,000 Sec.
Flickerless mode	On /Off switch
Auto IRIS:	DD / VD switchable
Phase control:	V-Phase ± 90°
Sync. mode:	Internal Sync. with LL off Line-Locked with LL on
Lens mount :	C/CS Mount back focus adjustment
Power source:	12VDC±10%, 150mA or 24VAC±10%, 150mA; 90~265VAC±10%
Dimension:	51(W) x 57(H) x 140.2(D) mm
Weight:	500g

Ordering Information:

EQ120	Low lux B/W mid-resolution box style camera

* Lenses sold separately. Please see page 32 for available lenses.

EQ150

1/3" Black & White high-resolution Low Lux Digital Camera

B/W EIA, CCIR | ES ON/OFF | A.I. VD/DD SW | BLC ON/OFF | AGC ON/OFF | L.L AUTO/OFF

AC/DC 24V/12V | AC 90V~265V

Specifications

Video format:	EIA or CCIR
Picture element:	768 x 494 (EIA); 752 x 582 (CCIR)
Horizontal resolution:	560 TV lines
Sensitivity:	0.01 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On /Off switch
Auto gain control:	On /Off switch
Electronic shutter:	1/60 (1/50) ~ 1/100,000 Sec.
Flickerless mode	On /Off switch
Auto IRIS:	DD / VD switchable
Phase control:	V-Phase ± 90°
Sync. mode:	Internal Sync. with LL off Line-Locked with LL on
Lens mount :	C/CS Mount back focus adjustment
Power source:	12VDC±10%, 150mA or 24VAC±10%, 150mA; 90~265VAC±10%
Dimension:	51(W) x 57(H) x 140.2(D) mm
Weight:	500g

Ordering Information:

EQ150/E	Low lux high resolution B/W Digital Camera

* Lenses sold separately. Please see page 32 for available lenses.

EHD150

1/3" Black & White Rugged Dome Camera

IP66

B/W EIA, CCIR | ES 1/100,000 | BLC ON/OFF | AGC ON/OFF | L.L. ON/OFF | AC/DC 24V/12V

Specifications

Video format:	EIA or CCIR
Picture element:	EIA: 768(H) x 494(V); CCIR: 752(H) x 582(V)
Horizontal resolution:	560 TV lines
Sensitivity:	0.06 lux/F=1.6
S/N ratio:	>48dB(AGC off)
Electronic shutter:	1/60(1/50)~1/100,000 (Board lens only)
Back light comp.:	on/off switch
Auto gain control:	on/off switch
Line Lock:	on/off switch for 24VAC
Gamma correction:	0.45
IRIS:	Auto (vari-focal lens only)
Dimension:	130(W) x 98.9(H) x 130(D)mm
Power Source:	12VDC+-10%, 1 Amp or 24VAC+-10%, 1Amp
Lens:	Vari-focal f=3.5~8mm, f=9~22mm
Weight:	1.7kg

Ordering Information:

EHD150/E-1	Low lux high resolution B/W digital camera with 3.5 ~ 8.0mm lens
EHD150/E-2	Low lux high resolution B/W digital camera with 9.0 ~ 22.0mm lens

EZ120

1/3" Black & White Weatherproof Camera

IP66

B/W EIA, CCIR | ES 1/100,000 | BLC ON | AGC ON | DC +12V

Specifications

Video format:	EIA or CCIR
Picture element:	510 x 492 (EIA); 500 x 580 (CCIR)
Horizontal resolution:	420 TV lines
Sensitivity:	0.04 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	Yes
Auto gain control:	On
Electronic shutter:	1/60 (1/50) ~ 1/100,000 Sec.
Sync. mode:	Internal Sync.
Weatherproof ratings:	IP66
Power source:	12VDC ±10%, 150mA
Dimension:	57 (D) x 110 (L) mm
Lens:	Board lens f=4.3mm, F=2.0 (Optional 6.0/ 8.0 mm)
Weight:	710g

Ordering Information:

EZ120B/E-4	B/W weatherproof camera with 4.3mm lens. E-6 is 6.0mm lens and E-8 is 8.0mm lens

* Lenses sold separately. Please see page 32 for available lenses.

EZ180

1/4" Black & White high-resolution Weatherproof Camera

IP66

B/W EIA, CCIR | BLC ON/OFF | AGC ON/OFF | F.L ON/OFF | AC/DC 24V/12V

Specifications

Video format:	EIA or CCIR
Picture element:	768 x 494 (EIA); 752 x 582 (CCIR)
Horizontal resolution:	560 TV lines
Video output:	1Vp-p/ 75 ohm
Lens focal length:	Vari-focal f=3.5mm~8mm; Vari-focal f=9mm~22mm
Sensitivity:	0.06 lux/ F=1.6
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On /Off switch
Auto gain control:	On /Off switch
Flickerless:	On /Off switch
Sync. mode:	Internal Sync.
Weatherproof ratings:	IP66
Power source:	12VDC+-10%, 1 Amp or 24VAC+-10%, 500mA
Power consumption:	3W max;12W (When heater active)
Dimension:	83(W) x 70(H) x 172.5(D) mm; with sun shield 57(W) x 132(L) mm without sun shield
Heater auto activated temperature:	10°C
Operation temperature:	-46°C to +50°C

Ordering Information:

EZ180/E-1	B/W high-resolution weatherproof camera with standard 3.5~8 mm vari-focal lens
EZ180/E-2	B/W high-resolution weatherproof camera with 9.0~22 mm vari-focal lens

EI100

1/3" Black & White Lens Integrated Camera

B/W EIA, CCIR | ES 1/10,000 | BLC ON | AGC ON | DC +12V

Specifications

Video Format:	EIA/CCIR
Picture Element:	EIA:510 (H) x 492 (V) CCIR:500 (H) x 582 (V)
Horizontal Resolution:	420 TV lines
Sensitivity:	0.04 lux / F=1.2
S/N ratio:	Over 48 dB (AGC off)
Electronic Shutter:	Up to 1/10,000 Sec.
Black Light Comp:	On/Off switch
Auto Gain Control:	On
Gamma Correction:	>0.45
Sync Mode:	Internal Sync.
Power Source:	24VAC+-10%, 300mA
Dimension:	66(w)x59(H)x146(L)mm
Lens Mount:	Vari-Focal lens 4~9mm, F=1.5
Operation Temperature:	0°C to +50°C
Mounting bracket dimension:	Aluminum, 155mm(H)x45mm(O.D.) Max Load 3kgs

Ordering Information:

EI100	B/W vari-focal lens integrated camera with mounting bracket

EQ500 / EQ520

1/3" Day/Night Digital Color Camera

Features:

- 1/3" Color CCD pick up device
- 480 TV lines horizontal resolution
- Programmable camera ID
- User friendly on-screen set up menu allows ES, AGC, AWB, BLC, and Sync. to be customized program
- High resolution color camera in bright light and B/W camera in low light
- RS232 remote control communication and S-Video output available

COLOR NTSC, PAL | AWB OSD | ES OSD | A.I. VD/DD | BLC OSD | AGC OSD | Sync. OSD

AC/DC 24V/12V | AC 90V~260V

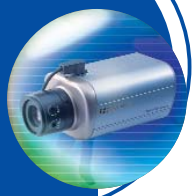
Specifications

Video format	NTSC or PAL
Picture element:	NTSC:768 (H) x 494 (V) ; PAL: 752(H) x 582(V)
Scanning system:	525 lines (NTSC), 625 lines (PAL)
Horizontal resolution:	480 TV lines
Sensitivity:	1.0 lux/F=1.2
S/N ratio:	Over 48 dB (AGC off)
Camera ID symbol:	9 characters title generator
Back light comp.:	Yes , 255 levels variable on screen
Auto white balance:	Three Modes Selectable: 1. Standard: 2500°K~9500°K 2. Large Frame: 2400°K~11000°K 3. No Frame: 2000°K~18000°K
Auto white balance speed:	Stop~14, 15 steps variable on screen
Auto IRIS:	Video Drive or Direct Drive switchable
D/D Lens iris Level:	Level: L~H, 30 steps variable on screen
Exposure:	Four modes selectable on screen: 1. ES: 1/60(1/50) ~ 1/100,000 sec. ; AGC Gain: 10~36 dB 2. Manual Exposure: 1/60(1/50), 1/100(1/120), 1/250, 1/500, 1/1000, 1/2000, 1/5000, 1/10,000 sec. ; AGC Gain: 0, 6, 12, 18 3. Flickerless: 1/100(NTSC), 1/120(PAL); AGC Gain: 10~36 dB 4. Auto IRIS: 1/60(1/50) sec. ; AGC Gain: 10~36 dB
Sync. mode:	Internal sync. / Line lock
V Phase adjustment:	Line Phase ,0~300° (60 steps variable on screen)
Gamma correction:	>0.45
Video output:	BNC VBS, 1.0Vp-p, 75 ohm
S-Video:	Y: 1.0Vp-p, 75ohm, C: 286mV, 75ohm
Day/Night:	On / Off
Lens mount:	C / CS mount
Power source:	12VDC+-10%, 500mA or 24VAC+-10%, 200mA; 90~260VAC+-10%
Power consumption:	5W max.
Dimension:	56(W) x 68(H) x 101(D)mm
Operating temperature:	0°C to + 50°C
Weight:	540g

Ordering Information:

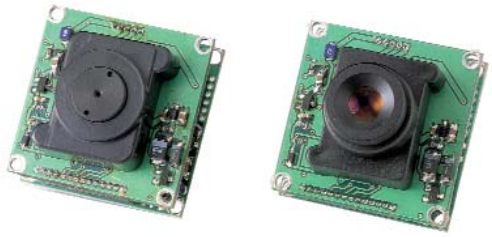
EQ500	High resolution DSP day/night camera with Sony Chipset
EQ520	High resolution DSP day/night camera with Sharp Chipset

* Lenses sold separately. Please see page 32 for available lenses.



EB220

1/3" Color Camera Module



COLOR NTSC, PAL | ES 1/100.000 | BLC ON | AGC ON | AWB ON | DC +12V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 512(H) x 492(V) ; PAL: 512(H) x 582(V)
Horizontal resolution:	NTSC: 380 TV lines; PAL: 340 TV lines
Sensitivity:	2.0 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On
Auto gain control:	On
Electronic shutter:	Up to 1/100,000 sec.
Auto white balance:	Yes
Sync. mode:	Internal Sync.
Power source:	12VDC ±10%, 200mA
Dimension:	32(W) x 32(H) x 32(D)mm
Lens:	Board lens f=3.6mm, F=2.0 (Optional 2.5/4.3/6.0/8.0/12.0/16.0mm; Pinhole 3.7/5.5mm)
Weight:	48g

Ordering Information:

EB220/N-3	Color board camera with standard 3.6mm lens. To order additional lenses, replace the last number with the first digit(s) of the lens desired: 2.5mm (N-2), 4.3mm (N-4), 6.0mm (N-6), 8.0mm (N-8), 12.0mm (N-12) and 16.0mm (N-16)
EB220/N-3P	Color board camera with standard 3.7mm pinhole Lens. For 5.5mm lens use N-5P

EM220

1/3" Color Metal Case Camera

CE

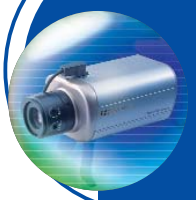
COLOR NTSC, PAL | ES 1/100.000 | BLC ON | AGC ON | AWB ON | DC +12V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 512(H) x 492(V) ; PAL: 512(H) x 582(V)
Horizontal resolution:	NTSC: 380 TV lines; PAL: 340 TV lines
Sensitivity:	2.0 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On
Auto gain control:	On
Electronic shutter:	Up to 1/100,000 sec.
Auto white balance:	Yes
Sync. mode:	Internal Sync.
Power source:	12VDC ±10%, 200mA
Dimension:	43(W) x 59(H) x 28(D)mm
Lens:	Board lens f=3.6mm, F=2.0 (Optional 2.5/4.3/6.0/8.0/12.0/16.0mm; Pinhole 3.7/5.5mm)
Weight:	141g

Ordering Information:

EM220/N-3	Color metal case camera with standard 3.6mm lens. To order additional lenses, replace the last number with the first digit(s) of the lens desired: 2.5mm (N-2), 4.3mm (N-4), 6.0mm (N-6), 8.0mm (N-8), 12.0mm (N-12) and 16.0mm (N-16)
EM220/N-3P	Color metal case camera with 3.6mm Pinhole Lens. N-5P refers to optional 5.5mm pinhole lens



ED200 / ED220

1/3" Color Mini Dome Camera

COLOR NTSC, PAL | ES 1/100.000 | BLC ON | AGC ON | AWB ON | DC +12V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 512(H) x 492(V) ; PAL : 512(H) x 580(V)
Horizontal resolution:	NTSC: 380 TV lines; PAL: 340 TV lines
Sensitivity:	2.0 lux / F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On
Auto gain control:	On
Electronic shutter:	Up to 1/100,000 sec.
Auto white balance:	Yes
Sync. mode:	Internal Sync.
Power source:	12VDC ±10%, 200mA
Dimension:	108 (O. D.) mm x 80 (H) mm
Lens:	Board lens f=3.6mm, F=2.0 (Optional 2.5/4.3/6.0/8.0/12.0/16.0mm)
Weight:	330g

Ordering Information:

ED200/N-3B	Dome style color camera with standard 3.6mm lens, black base and Sony CCD. To order additional lenses, replace the last number with the first digit(s) of the lens desired: 2.5mm (N-2), 4.3mm (N-4), 6.0mm (N-6), 8.0mm (N-8), 12.0mm (N-12) and 16.0mm (N-16). Change the last letter to reflect the color (i.e., B = Black, W = White)
ED220/N-3B	Dome style color camera with standard 3.6mm lens, black base and Sharp CCD. To order additional lenses, replace the last number with the first digit(s) of the lens desired: 2.5mm (N-2), 4.3mm (N-4), 6.0mm (N-6), 8.0mm (N-8), 12.0mm (N-12) and 16.0mm (N-16). Change the last letter to reflect the color (i.e., B = Black, W = White)

EQ200

1/3" Mid-Resolution DSP Color Digital Camera

COLOR NTSC, PAL | AWB DIGITAL | ES 1/100,000 | A.I. VD/DD | AGC ON/OFF | AC/DC 24V/12V

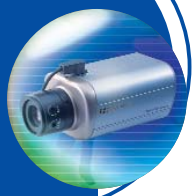
Specifications

Pickup device:	1/3 interline transfer color CCD
Video format:	NTSC / PAL
Picture element:	NTSC: 510 (H) x 492 (V) PAL: 500 (H) x 582 (V)
Horizontal resolution:	380 TV lines
Sensitivity:	0.5 lux / F=1.2
S/N ratio:	48dB (AGC off)
Electronic shutter:	up to 1/100,000
Auto white balance.:	Digital auto tracing
Auto IRIS:	DD/VD switchable
Auto gain control:	On/Off switch
Gamma correction:	>0.45
Sync. mode:	Line Lock or Internal Sync.
Lens mount:	C / CS mount
Power source:	12VDC±10%, 200mA or 24VAC±10%, 200mA
Dimension:	40(W) x 45(H) x 152(D) mm
Operating temperature:	0°C to +50°C
Weight:	295g

Ordering Information:

EQ200A/N	Mid-Resolution Digital DSP Color Camera

* Lenses sold separately. Please see page 32 for available lenses.



EQ250

1/3" Mid-Resolution Digital DSP Color Camera

COLOR NTSC, PAL | AWB DIGITAL | ES ON/OFF | A.I. VD/DD SW | BLC ON/OFF | AGC ON/OFF | L.L. AUTO/OFF

AC/DC 24V/12V | AC 90~265V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 510(H) x 492(V) ; PAL : 500(H) x 580(V)
Horizontal resolution:	NTSC: 380 TV lines PAL: 340 TV lines
Sensitivity:	0.5 lux / F= 1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On /Off switch
Auto gain control:	On /Off switch
Electronic shutter:	1/60 (1/50) ~ 1/100,000 Sec.
Auto white balance:	Digital auto tracing
Flickerless mode:	On /Off switch
Auto IRIS:	DD / VD switchable
Sync. mode:	Internal Sync.; Auto Line Lock
Lens mount:	C/CS Mount back focus adjustment
Power source:	12VDC±10%, 200mA or 24VAC±10%, 200mA; 90 ~ 265VAC±10%
Dimension:	51(W) x 57(H) x 140.2(D)mm
Weight:	500g

Ordering Information:

EQ250	Mid-Resolution Digital DSP Color Camera

* Lenses sold separately. Please see page 32 for available lenses.

EQ320 / EQ350

1/3" High-Resolution Digital DSP Color Camera

COLOR NTSC, PAL | AWB DIGITAL | ES ON/OFF | A.I. VD/DD SW | BLC ON/OFF | AGC ON/OFF | L.L. AUTO/OFF

AC/DC 24V/12V | AC 90~265V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 768(H) x 494(V); PAL: 752(H) x 582(V)
Horizontal resolution:	480 TV lines
Sensitivity:	0.5 lux / F= 1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Back light comp.:	On /Off switch
Auto gain control:	On /Off switch
Electronic shutter:	1/60 (1/50) ~ 1/100,000 Sec.
Auto white balance:	Digital auto tracing
Flickerless mode:	On /Off switch
Auto IRIS:	DD/VD switchable
Sync. mode:	Internal Sync.; Auto Line Lock
Lens mount:	C/CS Mount back focus adjustment
Power source:	12VDC±10%, 200mA or 24VAC±10%, 200mA; 90 ~ 265VAC±10%
Dimension:	51(W) x 57(H) x 140.2(D)mm
Weight:	500g; 600g

Ordering Information:

EQ320	High-Resolution Color Digital Camera with Sharp CCD
EQ350	High-Resolution Color Digital Camera with Sony CCD

* Lenses sold separately. Please see page 32 for available lenses.

EQ600

1/3" W-Dynamic High-Resolution Color Camera

COLOR NTSC, PAL | AWB DIGITAL | ES Yes | BLC Yes | AGC Yes | L.L. AUTO | AC/DC 24V/12V

Specifications

Picture element:	NTSC :736(H) x 556(V) PAL: 720(H) x 540(V)
Horizontal resolution:	>480 TV lines
Sensitivity:	1.0 lux / F=1.2, (50 IRE, ACG on)
S/N ratio:	more then 48dB
Electronic shutter:	Up to 1/100,000
Auto White balance range:	2500K to 9500K
Back light compensation:	Yes
Auto Gain Control:	Yes
Auto Iris:	Yes
Video Output standard:	NTSC/PAL switchable
Video Outputs:	1.0Vp-p composite S-Video (Y/C output)
Gamma:	0.45
Dynamic range:	95 dB typical, 120dB max
Control method:	OSD function control
Power source:	12VDC±10%, 300mA or 24VAC±10%, 300mA;
Lens:	Vai-focal f=3.5~8 mm
Dimension:	66(W) x 59(H) x 146(D)mm
Operation Temperature:	0°C to +40°C

Ordering Information:

EQ600	Please Call for Order Information and Availability

ESD220

1/3" Color Smoke Detector Camera

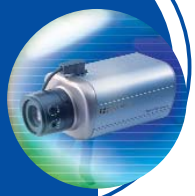
COLOR NTSC, PAL | ES 1/100,000 | AWB ON | BLC ON | AGC ON | DC +12V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 512 x 492 ; PAL: 512 x 582
Horizontal resolution:	NTSC: 380 TV lines; PAL: 340 TV lines
Sensitivity:	2.0 lux / F=1.2
S/N ratio:	over 48dB (AGC off)
Electronic shutter:	up to 1/100,000
Back light comp.:	on
Auto gain control:	on
Auto white balance:	Yes
Gamma correction:	>0.45
IRIS:	fixed
Power source:	12VDC ±10%, 200mA
Dimension:	150 (O. D.) mm x 50 (H) mm
Lens:	Board lens f=4.3mm, F=2.0 (Optional 6.0/8.0mm)
Weight:	320g

Ordering Information:

ESD220/N-4	Color fire detector covert camera with one 4.3mm lens. Change the last number to reflect which lens is preferred: 6.0mm (N-6), 8.0mm (N-8)
Additional	Up to two cameras can be placed inside this unit. Additional cameras can be ordered as ESB220/N-4, 6 or 8



ED300

1/3" High-Resolution Color Dome Camera

COLOR NTSC, PAL | ES 1/60, 1/50 | AWB ON | BLC ON/OFF | AGC ON/OFF | A.I. DD | DC +12V | AC 24V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 768(H) x 494(V) ; PAL : 752(H) x 582(V)
Horizontal resolution:	480 TV lines
Sensitivity:	0.5 lux / F=1.2
Gamma correction:	>0.45
Back light comp.:	On /Off switch
Auto gain control :	On /Off switch
Auto white balance:	Yes
IRIS level:	Adjustable
Monitor output pin:	Yes
S/N ratio:	over 48dB (AGC off)
Sync. mode:	Internal sync.
Power source:	12VDC ±10% or 24VAC±10%, 300mA
Dimension:	108 (O. D.) mm x 80 (H) mm
Lens:	Vari-focal f=3.5~8mm,F=1.6~360 0.5lux/F=1.2
Weight:	460g

Ordering Information:

ED300N	1/3" High-Resolution vari-focal color dome camera with Tan Base
ED300NW	1/3" High-Resolution vari-focal color dome camera with white base
ED300NB	1/3" High-Resolution vari-focal color dome camera with blackbase

EHD350

1/3" Color Rugged Dome Camera

FCC | IP66

COLOR NTSC, PAL | ES 1/100,000 | AWB YES | BLC ON/OFF | AGC ON/OFF | L.L. ON/OFF | AC/DC 24V/12V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 768(H) x 494(V); PAL: 752(H) x 582(V)
Horizontal resolution:	480 TV lines
Sensitivity:	0.5lux/F=1.6
S/N ratio:	over 48dB(AGC off)
Electronic shutter:	1/60(1/50)~1/100,000
Back light comp.:	on/off switch
Auto gain control:	on/off switch
Auto white balance:	Yes
Gamma correction:	0.45
IRIS:	Auto (vari-focal lens only)
Power source:	12VDC ±10%, 24VAC ±10%, 300mA
Dimension:	130(W) x 98.8(H) x 130(D)mm
Lens:	Vari-focal f=3.5~8mm, F=1.6; Vari-focal f=9.0~22.0mm
Weight:	1.7kg

Ordering Information:

EHD350/N-1	1/3" color rugged dome camera with 3.5 ~ 8.0mm vari-focal lens
EHD350/N-2	1/3" color rugged dome camera with 9.0 ~ 22.0mm vari-focal lens

EZ220

1/3" Color Weatherproof Camera

COLOR NTSC, PAL | ES 1/100,000 | AWB ON | BLC ON | AGC ON | DC 12V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC: 512 x 492 ; PAL: 512 x 582
Horizontal resolution:	NTSC: 380 TV lines PAL: 340 TV lines
Sensitivity:	2.0 lux / F=1.2
S/N ratio:	48dB (AGC off)
Electronic shutter:	up to 1/100,000
Back light comp.:	on
Auto gain control:	on
Auto white balance:	Yes
Gamma correction:	>0.45
IRIS:	fixed
Power source:	12VDC±10%, 300mA
Sync. mode:	Internal sync.
Weatherproof ratings:	IP66
Dimension:	57 (D) X 110 (L) mm
Operation temperature:	0°C to 50°C
Lens:	Board lens f=4.3mm, F=2.0 (Optional 6.0/ 8.0 mm)

Ordering Information:

EZ220/E-4	1/3" color mid-resolution weatherproof camera with 4.3mm lens. E-6 is 6.0mm lens and E8 is 8.0mm lens

EZ300

1/3" Color high-resolution Weatherproof Camera

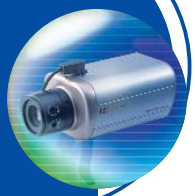
COLOR NTSC, PAL | AWB ON/OFF | BLC ON/OFF | AGC ON/OFF | FL ON/OFF | AC/DC 24V/12V

Specifications

Video format:	NTSC or PAL
Picture element:	NTSC:768x494; PAL:752x582
Horizontal resolution:	480 TV Lines
Video output:	1Vp-p/75 ohm
Sensitivity:	0.5 lux /F=1.2
Gamma correction:	>0.45
S/N ratio:	Over 48 dB (AGC off)
Auto white balance:	On/Off switch
Back light comp.:	On/Off switch
Auto gain control:	On/Off switch
Flickerless mode:	On/Off switch
Sync. mode:	Internal sync.
Weatherproof ratings:	IP66
Power source:	12VDC ±10%, 300mA; 24VAC ±10%, 300mA
Power consumption:	5W max. 15W when heater active
Dimension:	83(W) x 70(H) x 172(D) mm (With sun shield) 57(D) x 132(L)mm (Without sun shield)
Lens:	Vari-focal f=3.5mm~8mm; Vari-focal f=9mm~22mm, F=1.6~360
Heater auto activated temperature:	10°C
Operation temperature	-46°C to +50°C

Ordering Information:

EZ300/N-1	1/3" color high-resolution weatherproof camera with 3.5~8.0mm vari-focal lens
EZ300/N-2	1/3" color high-resolution weatherproof camera with 9.0~22.0mm vari-focal lens



EI220

1/3" Color Mid-Resolution Lens Integrated Camera

COLOR NTSC, PAL | AWB Yes | ES 1/100,000 | BLC ON/OFF | AGC ON | AC/DC 24V/12V

Specifications

Video Format:	NTSC/PAL
Picture Element:	NTSC:512 (H) x 492 (V) PAL:512 (H) x 582 (V)
Horizontal Resolution:	380 TV lines
Sensitivity:	0.5 lux / F=1.2
S/N ratio:	Over 48 db
Electronic Shutter:	Up to 1/100,000
Black Light Comp.:	On/Off switch
Auto Gain Control:	On
Auto White Balance:	Yes
Gamma Correction:	>0.45
Sync Mode:	Internal Sync.
Power Source:	24VAC±10%, 300mA
Dimension:	66(w)x59(H)x146(L)mm
Lens:	Integrated Vari-focal lens(4~9mm)
Operation Temperature:	0°C to +50°C
Mounting bracket dimension:	Aluminum, 155mm(H)x45mm(O.D.) Max Load 3kgs

Ordering Information:

EI220	Vari-focal lens integrated mid-resolution color camera

EI320

1/3" Color High-Resolution Lens Integrated Camera

COLOR NTSC, PAL | AWB Yes | ES 1/100,000 | BLC ON/OFF | AGC ON | AC/DC 24V/12V

Specifications

Video Format:	NTSC/PAL
Picture Element:	NTSC:768 (H) x 492 (V) PAL:752 (H) x 582 (V)
Horizontal Resolution:	480 TV lines
Sensitivity:	0.5 lux / F=1.2
S/N ratio:	Over 48 db
Electronic Shutter:	Up to 1/100,000
Black Light Comp.:	On/Off switch
Auto Gain Control:	On
Auto White Balance:	Yes
Gamma Correction:	>0.45
Sync Mode:	Internal Sync.
Power Source:	24VAC±10%, 300mA
Dimension:	66(w)x59(H)x146(L)mm
Lens:	Integrated Vari-focal lens(4~9mm)
Operation Temperature:	0°C to +50°C
Mounting bracket dimension:	Aluminum, 155mm(H)x45mm(O.D.) Max Load 3kgs

Ordering Information:

EI320	Vari-focal lens integrated high-resolution color

EverPlex 4BQ

Black & White Quad Processor

Specifications

Video format:	EIA / CCIR
Video input:	Up to 4 camera inputs with loop through; 1VCR input,1 Vp-p/75ohm
Video ouput:	1 Monitor output and 1 quad output for VCR, 1Vp-p/ 75ohm
Alarm input:	4 Alarm inputs
Alarm output:	1 Normally open, 1 normally closed
Dimension:	239(W) x 55(H) x 166(D)mm
Power source:	AC 24V±10%, 200mA
Power consumption:	5W max.
Operating temperature:	0°C to + 45°C

Ordering Information:

EP4BQ	B/W Quad Processor

EverPlex 8BQ (EP100)

Black & White Dual Page Quad Processor

Specifications

Video format:	EIA / CCIR
Video input:	8 Camera inputs, 1 Vp-p/ 75ohm
Video ouput:	1 Monitor output and 1 quad output for VCR, 1Vp-p/ 75ohm
Timer:	Built-in real time clock
Alarm input:	8 Alarm inputs
Alarm output:	1 Normally open, 1 normally closed
Dimension:	239(W) x 55(H) x 166(D)mm
Power source:	AC 24V±10%, 200mA
Power consumption:	5W max.
Operating temperature:	0°C to + 45°C

Ordering Information:

EP8BQ (EP100)	B/W dual page quad processor. Also know as EP100

EverPlex 4BDX

4 Channel Black & White Duplex Multiplexer

Specifications

Video format:	EIA / CCIR
Video input:	4 Camera inputs with loop through, 1 Vp-p/ 75ohm; 1 VCR input, 1Vp-p/ 75ohm
Video output:	4 Video outputs, 1 Vp-p/ 75ohm
Monitor output:	2 monitor outputs:main monitor and call monitor
Recording output:	Multiplexed video output (1 Vp-p/ 75ohm)
Refresh rate:	60 fields/sec. (EIA) / 50 fields/sec. (CCIR)
Resolution:	960 x 480 (EIA) 960 x 576 (CCIR)
VCR playback:	Yes
Time-lapse record:	Selectable time-lapse recording mode
Title:	8-Character title generator for each camera input
Timer:	Bulit-in real time clock
Alarm input:	4 Alarm inputs and 1 alarm reset input
Alarm output:	1 Normally open, 1 normally closed relay output
Buzzer:	Yes
Video freeze:	Yes
Video loss detection:	Yes
Setup:	On screen setup
Switching:	Programmable auto seqential switch and adjustable dwelling time (1-99 sec.)
Key lock:	Yes
Remote control:	D-Sub 9 pin/ RS232
Dimension:	438(W) x 44(H) x 262(D)mm
Weight:	4.5 Kg.
Power source:	AC 90V~260V±10, 50/60Hz, 700mA
Power consumption:	17W max.
Operating temperature:	0°C to +45°C

Ordering Information:

EP4BDX	4 channel B/W duplex multiplexer

EverPlex 8BDX

8 Channel B/W Duplex Multiplexer

Specifications

Video format:	EIA/CCIR
Display format:	1, 4, 4+4, 9
Video input:	8 Camera inputs with loop through, 1 Vp-p/ 75ohm; 1 VCR input, 1Vp-p/ 75ohms
Video output:	8 Video outputs, 1 Vp-p/ 75ohm
Monitor output:	2 Monitor outputs:main monitor and call monitor
Recording output:	Multiplexed video output (1 Vp-p/ 75ohm)
Resolution:	960 x 480 (EIA) / 960 x 576 (CCIR)
Refresh rate:	60 fields/sec. (EIA) / 50 fields/sec. (CCIR)
VCR playback:	Yes
Playback zoom:	Yes
Time-lapse record:	Selectable time-lapse recording mode
Dynamic recording priority:	Yes
Title:	10-Character title generator for each camera input
Timer:	Bulit-in real time clock
Alarm input:	8 Alarm inputs and 1 alarm reset input
Alarm output:	1 Normally open, 1 normally closed relay output
Video freeze:	Yes
Video loss detection:	Yes
Motion detection:	192-Target per camera
Setup:	On screen setup
Switching:	Programmable auto seqential switch and adjustable dwelling time (1-99 sec.)
Key lock:	Yes
Remote control:	D-Sub 9 pin/ RS232
IR remote control:	Yes
Dimension:	438(W) x 44(H) x 262(D)mm
Weight:	5Kg.
Power source:	AC24V±10%, 200mA
Power consumption:	17W max.
Operating temperature:	0°C to +45°C

Ordering Information:

EP8BDX	8 channel B/W duplex multiplexer. Comes with IR remote.

EverPlex 16BTX

16 Channel Black & White Triplex Multiplexer

Features

- Full capability triplex multiplexer allows video recording while viewing live video images and video playback images at the same time.
- Full screen, 4, 7, 9, 10, 13, 16 split-screen real time monitoring.
- Spot monitoring, single sequence monitoring, covert monitoring, and PIP display are available both at live and playback mode..
- Digital PTZ and 2X zoom
- Priority camera multiplexing, video loss detection, and simultaneous digital video detection on all channels.
- Cascade up to 31 multiplexers via RS-485.
- Nonvolatile program memory protects all programmable features against power loss.

Specifications

Video format:	EIA / CCIR
Display format:	1, 4, 7, 9, 10, 13, 16, SEQ, PIP, COVERT
Video input:	16 camera inputs with loop through, 1Vp-p/75ohm, 1 VCR input, 1Vp-p/75ohm
Video output:	16 video outputs, 1 Vp-p/ 75ohm
Monitor output:	2 monitors outputs:main monitor and call monitor
Recording output:	Multiplexed video output (1 Vp-p/ 75ohm);
Resolution:	960 x 480 (EIA) / 960 x 576 (CCIR)
Refresh rate:	60 fields/sec. (EIA) / 50 fields/sec. (CCIR)
Display memory:	1024 x1024, 4MB
VCR playback:	1, 4, 7, 9, 10, 13, 16, SEQ, PIP, COVERT
Zoom:	2X digital zoom for digital pan/tilt during live and playback
Time-lapse record:	Selectable time-lapse recording mode
Dynamic recording priority:	Yes
Title:	12-Character title generator for each camera input

Timer:	Bulit-in real time clock
Alarm input:	16 alarm inputs and 1 alarm reset input
Alarm output:	2 alarm outputs
Alarm management:	Up to 160 alarm records
Gain control:	8 steps variable on screen
Video freeze:	Live and playback
Video loss detection:	Yes
Motion detection:	256-Target per camera (16x16)
Setup:	On screen setup
Switching:	Programmable auto seqential switch and adjustable dwelling time (1-99 sec.)
Key lock:	Yes
Remote control:	RS-232 / RS-485
Dimension:	438(W) x 44(H) x 262(D)mm
Weight:	5Kg.
Power source:	12 VDC, 1.5 AMP
Power consumption:	14W max.
Operating temperature:	0°C to +45°C

Ordering Information:

EP16BTX	16 channel B/W triplex multiplexer.

EverPlex 4CQ

Color Quad Processor

Specifications

Video format:	NTSC / PAL
Video input:	4 Camera inputs, 1 Vp-p/ 75ohm; 1 VCR input, 1 Vp-p/75ohm
Video output:	2 Video outputs, 1 Vp-p/ 75 ohm
Timer:	Built-in real time clock
Alarm input:	4 Alarm inputs
Alarm output:	Normal close, normal open alarm out
Dimension:	239(W) x 55(H) x 166(D)mm
Power source:	12VDC±10% or 24VAC±10%
Power consumption:	17W max.
Operating temperature:	0°C to +45°C

Ordering Information:

EP4CQ	4 channel color quad processor

EverPlex 8CQ (EP200)

Dual Page Color Quad Processor

Specifications

Video format:	NTSC / PAL
Video input:	8 Camera inputs, 1 Vp-p/ 75ohm; 1 VCR input, 1 Vp-p/75ohm
Video output:	2 Video outputs, 1 Vp-p/ 75 ohm
Alarm input:	8 Alarm inputs
Alarm output:	Normal close, normal open alarm out
Dimension:	239(W) x 55(H) x 166(D)mm
Power source:	12VDC±10% or 24VAC±10%
Power consumption:	17W max.
Operating temperature:	0°C to +45°C

Ordering Information:

EP8CQ (EP200)	Dual page color quad processor

EverPlex 8CQL (EP220)

Digital Color Quad Processor

Specifications

Video format:	NTSC / PAL
Video input:	8 Camera inputs, 1 Vp-p/ 75ohm; 1 VCR input, 1 Vp-p/75ohm
Video output:	2 Video outputs, 1 Vp-p/75ohm
Title:	12-Character title generator for each camera input
Timer:	Bulit-in real time clock
Alarm input:	8 Alarm inputs and 1 alarm reset input
Alarm output:	1 Normally open, 1 normally closed relay output
Buzzer:	Yes
Setup:	On screen setup
Switching:	Auto on/off
Remote control:	D-Sub 9 pin/ RS232
Dimension:	438(W) x 44(H) x 262(D)mm
Power source:	AC 90V~260V±10, 50/60 Hz, 700mA
Power consumption:	17W max.
Operating temperature:	0°C to +45°C

Ordering Information:

EP8CQL	Color quad processor with looping

EverPlex 4CDX

4 Channel Color Duplex Multiplexer

Specifications

Video format:	NTSC / PAL
Video input:	4 Camera inputs with loop through, 1 Vp-p/ 75ohm; 1 VCR input, 1 Vp-p/ 75ohm; 1 S-Video VCR input, 1Vp-p/ 75ohm
Video output:	4 Video outputs, 1 Vp-p/ 75ohm
Monitor output:	2 Monitors outputs:main monitor and call monitor
Recording output:	Multiplexed video output,1 Vp-p/ 75ohm; 1 S-Video VCR output, 1 Vp-p/ 75ohm
Resolution:	720 x 480 (NTSC) / 720 x 576 (PAL)
Refresh rate:	60 fields/sec. (NTSC) / 50 fields/sec. (PAL)
VCR playback:	Yes
Playback zoom:	Yes
Time-lapse record:	Selectable time-lapse recording mode
Dynamic recording priority:	Yes
Title:	10-Character title generator for each camera input
Timer:	Bulit-in real time clock
Alarm input:	4 Alarm inputs and 1 alarm reset input
Alarm output:	1 Normally open, 1 normally closed relay output
Video freeze:	Yes
Video loss detection:	Yes
Setup:	On screen setup
Switching:	Programmable auto seqential switch and adjustable dwelling time (1-99 sec.)
Key lock:	Yes
Remote control:	D-Sub 9 pin/ RS232
Dimension:	438(W) x 44(H) x 262(D)mm
Weight:	5Kg.
Power source:	AC 90~260V±10, 50/60 Hz, 700mA
Power consumption:	16W max.
Operating temperature:	0°C to +45°C

Ordering Information:

EP4CDX	4 channel color duplex multiplexer

EverPlex 8CDX

8 Channel Color Duplex Multiplexer

Features

- Full capacity duplex multiplexer allows simultaneous recording and playback via 2 VCRs.
- Full screen, 4, 4 + 4 and 9 multiscreen real time monitoring
- Spot monitoring and single sequence monitoring
- Priority camera multiplexing and video loss detection on all channels
- S-VHS output to Monitor; S-VHS input/output to VCR
- Simultaneous digital video motion detection using a 192-target graphic overlay
- Nonvolatile program memory protects all programmable features against power loss

Specifications

Video format:	NTSC / PAL
Display format:	1, 4, 4+4, 9
Video input:	8 Camera inputs with loop through, 1 Vp-p/ 75ohm; 1 VCR input, 1 Vp-p/ 75ohm; 1 S-Video VCR input, 1Vp-p/ 75ohm
Video output:	8 Video outputs, 1 Vp-p/ 75ohm
Monitor output:	1main monitor and 1 call monitor output
Recording output:	Multiplexed video output,1 Vp-p/ 75ohm; 1 S-Video VCR output, 1 Vp-p/ 75ohm
Resolution:	720 x 480 (NTSC) / 720 x 576 (PAL)
Refresh rate:	60 fields/sec. (NTSC) / 50 fields/sec. (PAL)
VCR playback:	Yes
Playback zoom:	Yes
Time-lapse record:	Selectable time-lapse recording mode
Dynamic recording priority:	Yes
Title:	10-Character title generator for each camera input

Timer:	Bulit-in real time clock
Alarm input:	8 Alarm inputs and 1 alarm reset input
Alarm output:	1 Normally open, 1 normally closed relay output
Video freeze:	Yes
Video loss detection:	Yes
Motion Detection:	192-Target per camera
Setup:	On screen setup
Switching:	Programmable auto seqential switch and adjustable dwelling time (1-99 sec.)
Key lock:	Yes
Remote control:	D-Sub 9 pin/ RS232
IR remote control:	Yes
Dimension:	438(W) x 44(H) x 262(D)mm
Weight:	5Kg.
Power source:	AC 90~260V, 50/60 Hz, 700mA
Power consumption:	17W max.
Operating temperature:	0°C to +45°C

Ordering Information:

EP8CDX	8 channel color duplex multiplexer with IR remote

EDSR100H

Compact Size Single Channel Digital Video Recorder

Features

- Digital recording provides superior quality images
- Hard-disk hot-swapping capability
- Pre-alarm image recording
- Compatible with most multiplexers
- Time lapse and real time recording
- Refresh rate up to 30 pictures per second (25 pictures per second for PAL)
- Quick search by date/time, alarm events, and recording list
- Fast and slow playback of recorded video in various speeds
- On-screen setup menu and system timer
- Multi-level password protection
- RS-232/RS-485 communication port
- Highly stable non-PC based proprietary system
- Built-in M-JPEG compression with configurable quality
- Audio recording capability
- Programmed with various time-lapse speeds
- Data can be stored in CompactFlash card (includes CompactFlash reader)
- Operation status record log

Specifications

Video Input:	1 video input with loop through (BNC), 1Vpp/75ohm
Video Output:	1 video output (BNC), 1Vpp/75ohm
Video Compression:	M-JPEG
Video Resolution:	720x484 (NTSC); 720x576 (PAL)
CompactFlash Memory:	Yes, Built-in CompactFlash card slot
Alarm Input:	Yes
Alarm Output:	Yes
Audio:	2 inputs ; 2 outputs
Video Loss Detection:	Yes
RS-232:	9-pin female connector
Event Log:	Yes
Hard Disk Storage:	3.5" IDE type, hot- swappable
Recording Mode:	Continuous, time-lapse recording, timer or event recording
Recording Rate:	up to 30/25 pictures per second for NTSC/PAL
Playback Rate:	up to 30/25 pictures per second for NTSC/PAL
Playback Search:	By date/time or event or segment
Setup:	On screen display setup
User Interface:	Menu driven
User Input Device:	Front panel keypad
Timer:	Built-in real time clock
Watch Dog Timer:	Yes
Power Consumption:	39W
Power Source:	AC100~240V+-10%,Max. AC1.5 Amp. (Tolerance AC90~246V)
Dimension:	320.8mm (L) x 215mm (W) x 100mm (H)
Operating Temperature:	0ºC~+40ºC

Ordering Information:

EDSR100H/80	80 GB single channel DVR, Simplex, half size, no TCP/IP
EDSR100H/160	160 GB single channel DVR, Simplex, half size, no TCP/IP
EDSR100H/300	300 GB single channel DVR, Simplex, half size, no TCP/IP

EDSR100M

Mobile Single Channel Digital Video Recorder

Features

- Easy-to-use control panel with common VCR-style functions
- Shuttle/Jog dial for picture-by-picture or fast/slow viewing
- No tapes to manage, clean or replace
- Instant retrieval of stored video
- On-screen setup menu and system timer
- Pre-alarm and Post-Alarm process
- Built-in M-JPEG compression/decompression with configurable quality
- Programmed with various time-lapse speeds
- 2.5" IDE type hard disks for storage with hot-swap tray
- RS232 and RS485 for remote control
- Real-time live display
- Variable recording speeds up to 30/25 pictures per second for NTSC/PAL
- Alarm-activated recording
- Data can be stored in CompactFlash card (Includes CompactFlash reader)
- Audio recording capabilities
- Optional GPS Module to record position, longitude/latitude and speed

Specifications

Video Input:	1 video input with loop through(BNC),1Vpp/75ohm
Video Output:	1 video output(BNC),1Vpp/75ohm
Video Compression:	M-JPEG
Video Resolution:	720x480(NTSC);720x576(PAL)
CompactFlash Memory:	Yes, Built-in CompactFlash card slot
Alarm Input:	1 alarm input
Alarm Output:	1 alarm input
Video Display:	Full, PIP, Quad and 2x2 zoom for live and playback
Video Loss Detection:	Yes
Watch Dog Timer:	Yes
Event Log:	Yes
Hard Disk Storage:	2.5" IDE type, hot- swappable
Recording Mode:	Continuous, time-lapse recording, schedule or event recording
Recording Rate:	Up to 30/25 pictures per second for NTSC/PAL
Playback Search:	By date/time or event/segment
Setup:	On screen display setup
User Interface:	Menu driven
User Input Device:	Front panel keypad
Timer:	Built-in real time clock
Operating Temperature:	0°C ~ +50°C
RS-232:	9-pin female connector
RS485:	RJ45 Connector
Dimension:	320.8mm (L) x 273mm (W) x 109.9mm (H)
Power Consumption:	60W
Power Source:	12VDC, DC 5Amp or 24VDC,DC2.5Amp
Operating Shock:	8G, 11ms (20 per five seconds maximum)
Operating Vibration:	5~20Hz, 0.037 inches (double amplitude)

Ordering Information:

EDSR100M/60	60 GB Mobile single channel DVR, half size, with TCP/IP

EDSR400H

Compact Size Four Channel Digital Video Recorder

Features

- Easy-to-use control panel with common VCR
- Shuttle/Jog dial for picture-by-picture or fast/slow viewing
- No tapes to manage, clean or replace
- Instant retrieval of stored video
- On-screen setup menu and system timer
- Ethernet TCP/IP connectivity for remote viewing and controlling
- Pre-alarm and Post-alarm process
- Built-in M-JPEG compression/decompression with configurable quality
- Programmed with various time-lapse speeds
- RS232 and RS485 for remote control
- Real-time live display for all cameras
- Variable recording speeds up to 30/25 pictures per second for NTSC/PAL
- Alarm-activated recording
- Data can be stored in CompactFlash card (Includes CompactFlash reader)
- 3.5" IDE Type Hard Disks for storage with hot-swap tray

Specifications

Video Input:	4 camera inputs (BNC),1Vp-p/75ohm
Video Output:	1 BNC video out (1Vp-p/75 ohm) for Main Monitor 1 BNC video out (1Vp-p/75 ohm) for CALL Monitor 4 video out (1Vp-p/75ohm)for looping
Video Compression:	M-JPEG
Recording Resolution:	720x484 (NTSC); 720x576 (PAL)
CompactFlash Memory:	Yes, built-in CompactFlash card slot
Alarm Input:	4 alarm inputs
Alarm Output:	1 alarm output
Video Display:	Full, PIP, Quad and 2x2 zoom for live and playback
Video Loss Detection:	Yes
Ethernet:	RJ45 connectors for network communications
Event Log:	Yes
Hard Disk Storage:	3.5" IDE type, hot- swappable
Recording Mode:	Continuous, time-lapse recording, schedule or event recording
Recording Rate:	Up to 30/25 pictures per second for NTSC/PAL
Playback Rate:	Up to 30/25 pictures per second for NTSC/PAL
Playback Search:	By date/time or event/segment
Setup:	On screen display setup
User Interface:	Menu driven
User Input Device:	Front panel keypad
Timer:	Built-in real time clock
Watch Dog Timer:	Yes
RS-232:	9-pin female connector
RS485:	RJ11 connector
Dimension:	320.8mm (L) x 215mm (W) x 100mm (H)
Operating Temperature:	0ºC~+40ºC
Power Consumption:	60W
Power Source:	AC100~240V+-10%,Max. AC1.5 Amp. (Tolerance AC90~246V)

Ordering Information:

EDSR400H/80	80 GB 4 channel DVR, Simplex, half size, with TCP/IP
EDSR400H/160	160 GB 4 channel DVR, Simplex, half size, with TCP/IP
EDSR400H/300	300 GB 4 channel DVR, Simplex, half size, with TCP/IP

EDSR400M

Mobile Four Channel Digital Video Recorder

Features

- Easy-to-use control panel with common VCR-style functions
- Shuttle/Jog dial for picture-by-picture or fast/slow viewing
- No tapes to manage, clean or replace
- Instant retrieval of stored video
- On-screen setup menu and system timer
- Ethernet TCP/IP connectivity for remote viewing and controlling
- Pre-alarm and Post-alarm process
- Built-in M-JPEG compression/decompression with configurable quality
- Programmed with various time-lapse speeds
- 2.5" IDE type hard disks for storage with hot-swap tray
- RS232 and RS485 for remote control
- Real-time live display for all cameras
- Variable recording speeds up to 30/25 pictures per second for NTSC/PAL
- Alarm-activated recording
- Data can be stored in CompactFlash card (Includes CompactFlash reader)
- Audio recording capabilities
- Optional GPS Module to record position, longitude/latitude and speed

Specifications

Video Input:	4 camera inputs (BNC),1Vp-p/75ohm
Video Output:	1 BNC video out (1Vp-p/75 ohm) for Main Monitor 1 BNC video out (1Vp-p/75 ohm) for CALL Monitor 4 video out (1Vp-p/75ohm)for looping
Video Compression:	M-JPEG
Recording Resolution:	720x484 (NTSC); 720x576 (PAL)
CompactFlash Memory:	Yes, Built-in CompactFlash card slot
Alarm Input:	4 alarm inputs
Alarm Output:	1 alarm output
Video Display:	Full, PIP, Quad and 2x2 zoom for live and playback
Video Loss Detection:	Yes
Ethernet:	RJ45 connectors for network communications
Event Log:	Yes
Hard Disk Storage:	2.5" IDE type, hot- swappable
Recording Mode:	Continuous, time-lapse recording, schedule or event recording

Recording Rate:	Up to 30/25 pictures per second for NTSC/PAL
Playback Rate:	Up to 30/25 pictures per second for NTSC/PAL
Playback Search:	By date/time or event/segment
Setup:	On screen display setup
User Interface:	Menu driven
User Input Device:	Front panel keypad
Timer:	Built-in real time clock
Watch Dog Timer:	Yes
RS-232:	9-pin female connector
RS485:	RJ45 connector
Dimension:	320.8mm (L) x 215mm (W) x 109.9mm (H)
Operating Temperature:	0°C ~ +50°C
Power Consumption:	60W
Power Source:	12VDC, DC 5Amp or 24VDC,DC2.5Amp
Operating Shock:	8G, 11ms (20 per five seconds maximum)
Operating Vibration:	5~20Hz, 0.037 inches (double amplitude)

Ordering Information:

EDSR400M/60	60 GB Mobile 4 channel DVR, half size, with TCP/IP

EDSR110

Single Channel Digital Video Recorder

Features

- Digital Recording provides superior quality images
- Hard disk hot-swapping capability
- Pre-Alarm image recording
- Compatible with most multiplexers
- Time lapse and real time recording
- Refresh rate up to 30/25 pictures per second (50 field for PAL)
- Quick Search by date/time, alarm events, and recording list
- Fast and slow playback of recorded video in various speeds
- On-screen setup menu and system timer
- Multi-level password protection
- RS-232 communication port
- Highly stable Non-PC based proprietary system
- Built-in M-JPEG compression/decompression with configurable quality
- Audio recording capability
- Programmed with various time-lapse speeds
- Data can be stored in CompactFlash Card (includes CompactFlash reader)
- Operation status record log
- Ethernet TCP/IP connectivity for remote viewing and archiving

Specifications

Video format:	NTSC/PAL
Video Input:	1 video input (BNC), 1Vpp/75ohm; 1S-Video input
Video Output:	1 video input with loop through (BNC), 1Vpp/75ohm; 1S-Video output
Video Compression:	M-JPEG
Video Resolution:	720x484 (NTSC); 720x576 (PAL)
CompactFlash Memory:	Yes, Built-in CompactFlash card slot
Alarm Input:	Yes
Alarm Output:	Yes
Audio:	2 x mono (MIC) input; 2 x mono (Speaker) output
Video Loss Detection:	Yes
Event Log:	Yes
Display Resolution:	720 x 484 (NTSC); 720 x 576 (PAL)
Hard Disk Storage:	3.5” IDE type, hot- swappable
Recording Mode:	Continuous, time-lapse recording, timer or event recording
Recording Rate:	30/25 pictures per second for NTSC / PAL
Playback Rate:	30/25 pictures per second for NTSC / PAL
Playback Search:	Date/time or event
Setup:	On screen display setup
User Interface:	Menu driven
User Input Device:	Front panel keypad
Timer:	Built-in real time clock
Watch Dog Timer:	Yes
RS-232:	9 pin female connector
Power Source:	AC100~240V+-10%,Max. AC2.5 Amp. (Tolerance AC90~246V)
Dimension:	430mm (L) x 88mm (W) x 300mm (H)
Operating Temperature:	0°C ~ +45°C
Weight:	5.2kg

Ordering Information:

EDSR110Z	80GB single channel DVR, Simplex, with TCP/IP
EDSR110A	160GB single channel DVR, Simplex, with TCP/IP
EDSR110B	300GB single channel DVR, Simplex, with TCP/IP

EDSR1600/900/400

16/9/4 Channel Duplex Digital Video Recorder

Features

- Duplex operation for recording and playback
- Easy-to-use control panel with common VCR style function
- Jog/Shuttle dial for picture-by-picture or fast/slow viewing
- No tapes to manage, clean or replace
- Instant retrieval of stored video
- On-screen menus operations
- Ethernet TCP/IP connectivity for remote viewing and controlling
- Pre-alarm and Post-alarm process
- Built-in M-JPEG compression with configurable quality
- Programmed with common time-lapse speeds
- Two 3.5" IDE Type hard disks for storage with hot-swap tray
- RS232 and RS485 for remote control.
- Real-time live display for all cameras
- Variable recording speeds up to 30/25 pictures per second for NTSC/PAL
- Alarm-activated recording
- CompactFlash slot for archive
- Audio recording capabilities
- Motion detection capabilities
- Multi-language support
- Up to 600GB of internal storage capacity
- 4 matrix outputs with free adjustable sequences for each monitor and individual dwell times for each camera(9&16 channel only)
- PTZ controls

Specifications

Video Format:	NTSC/EIA or PAL/CCIR
Video Input:	4/9/16 camera inputs (BNC), 1Vp-p/75ohm
Video Output:	1 BNC video out (1Vp-p/75ohm) for Main
Monitor:	1 S-Video out for Main Monitor 1 BNC video out (1Vp-p/75ohm) for CALL Monito 4/9/16 video out (1Vp-p/75ohm) for Looping
Video Compression:	M-JPEG
Video Resolution:	720x484 (NTSC) or 720x576 (PAL)
Video Display:	Full,PIP,4,6,7,9,10,13,16 and 2x2 Zoom for live and full,PIP,4,9,16 and 2x2 Zoom for playback
Display Resolution:	720x484 (NTSC) or 720x576 (PAL)
Video Pause:	Yes
Alarm Input:	4/9/16 alarm inputs
Alarm Output:	1 alarm output
Hard Disk Storage:	Two hot-swap 3.5" IDE hard disk
Recording Rate:	Up to 60/50 fields per second for NTSC/PAL
Recording Mode:	Continue, time-lapse, schedule or event recording
Playback Rate:	Up to 30/25 pictures per second for NTSC/PAL
Playback Search:	By date/time or event
Motion Detection:	Yes, with configurable detection area & sensitivity

Video Loss Detection:	Yes
Event Log:	Yes
User Interface:	Menu driven
Setup:	On screen display setup
User Input Device:	Front panel keypad with Shutter/Jog
Timer:	Built-in real time clock
Watch Dog Timer:	Yes
Title:	12-character title generator for each camera
Ethernet:	RJ45 connectors for network communications
Archive:	CompactFlash slot for archive
RS-232:	9-pin female connector for local communication
RS-485:	RJ11 connectors for remote control
Audio:	2 mono (MIC) input, 2 mono (SPEAKER) output
Power Source:	AC100~240V+-10%,Max. AC2.5 Amp. (Tolerance AC90~246V)
Dimension:	430(W) x 88(H) x 300(D)mm
Weight:	4.85kg
Operating Temperature:	0°C ~ +40°C

Ordering Information:

EDSR400/160	160 GB 4 channel DVR, Duplex, with TCP/IP
EDSR400/320	320 GB 4 channel DVR, Duplex, with TCP/IP
EDSR400/600	600 GB 4 channel DVR, Duplex, with TCP/IP
EDSR900/160	160 GB 9 channel DVR, Duplex, with TCP/IP
EDSR900/320	320 GB 9 channel DVR, Duplex, with TCP/IP
EDSR900/600	600 GB 9 channel DVR, Duplex, with TCP/IP
EDSR1600/160	160 GB 16 channel DVR, Duplex, with TCP/IP
EDSR1600/320	320 GB 16 channel DVR, Duplex, with TCP/IP
EDSR1600/600	600 GB 16 channel DVR, Duplex, with TCP/IP

PowerPlex eDR400

4 Channel Digital Video Recorder

Features

- Triplex operation for simultaneously viewing, recording, and playback
- 4 camera inputs Color or B/W
- Auto PAL and NTSC format detection
- Built-in MPEG1 and JPEG compression/decompression
- One hot swappable hard drive
- Continuous recording, event recording, and time-lapse recording modes
- Pre-alarmed recording of up to 5 seconds
- 4 alarm inputs with configurable actions mapped to time zones
- 4 alarm outputs (2 N.C. / 2 N.O.)
- Event logging for video loss, motion detection, alarm input, alarm reset, power on/off
- Records up to 30 frames per second
- Multiple password authorization for high degree of security
- Remote surveillance and control via TCP/IP, LAN, Web browser, WAP Phone
- Remote alarm notification via E-mail
- Remote upload/download of system configurations
- Audio recording capability
- User friendly graphic design interface
- Nonvolatile program memory protects all programmable features against power loss
- System auto recovery after power failure guarantees robust security surveillance
- Stable and reliable Non-PC based operation system
- Encrypted transmission for data protection
- Assignable frame rates by camera
- Radar search functions such as thumbnail video, motion and alarm

Specifications

Video format:	NTSC/EIA or PAL/CCIR (auto-sensing)
Video Input:	4 camera inputs (BNC), 1Vp-p/75ohm
Video Output:	1 VGA monitor output, D-Sub 15 pin
Video Compression:	JPEG and MPEG-1
Video Resolution:	352x240 (NTSC) ; 352x288 (PAL)
Display Resolution:	16 millions true color, 800x600
CompactFlash Memory:	64MB
Alarm Input:	4 inputs (N.C., N.O.)
Alarm Output:	4 outputs (2 N.C., 2 N.O.)
Motion Detection:	Yes, 16 (width) x 12 (height) matrix
Video Loss Detection:	Yes
Event Log:	Yes
Hard Disk Storage:	3.5" half height, IDE type, Hot swappable
Recording Mode:	Continuous, time-lapse recording, event recording
Recording Rate:	Up to 30/25 pictures for NTSC/PAL
Playback Rate:	Up to 30/25 pictures for NTSC/PAL
Playback Search:	Date/time, camera, alarm, motion search
Setup:	On screen setup
User Interface:	Graphic user interface
User Input Device:	Mouse (Default) and Keyboard (Optional)
Title:	10-character title generator for each camera

Sequential Switch:	Programmable, with adjustable dwell time
Watch Dog Timer:	Yes
Security:	Multi-level password protection
System Protection:	Auto power on after power loss recovery
Remote access:	Internet explorer / netscape with JAVA support
Remote notification:	By e-mail
Network protocol:	HTTP, SMTP, TCP/IP, ICMP, ARP
Fast Ethernet:	RJ45 connector x 2
RS-232/485:	2 x RS232 Connectors or 1 x RS232 connector, 1 x RS485 connector (programmable)
Audio:	1 microphone input, 1 speaker output (Optional)
Archive:	2 USB ports: one for CD-RW Drive, one for color printer (HP or EPSON)
Power Source:	DC 24V±10%, DC1.5 Amp.
Power Consumption:	36W
Dimension:	256mm (L) x 178mm (W) x 88mm (H)
Weight:	2.7 Kgs / 5.94Lbs
Operating Temperature:	0°C ~ +45°C

Ordering Information:

EDR400	80GB 30fps, Triplex, with TCP/IP connection
EDR400C	160 GB 30fps, Triplex, with TCP/IP connection
EDR400D	300 GB 30fps, Triplex, with TCP/IP connection

PowerPlex eDR1600

16 Channel Digital Video Recorder

Features

- Triplex operation for simultaneous viewing, recording, and playback
- Stable and reliable non Windows based operating system
- 16 camera inputs color or B/W cameras with loop-through
- Auto PAL and NTSC format detection or manual system setting
- Multiple monitor output formats
- Built-in MPEG1 and JPEG compression
- Multiple screen modes: Full screen, 4, 7, 9, 10, 13 and 16 multiscreen video displays
- Dual hot-swappable hard drives
- Recording time can be unlimited by expanding additional HDDs in disk arrays (PowerPlex EDA800)
- Recording rate: 60 pictures per second global processing rate
- Recording modes: continuous recording, event recording, and time-lapse recording modes
- Alarm notification via e-mail
- 24 alarm inputs with configurable actions mapped to time zones
- 8 alarm outputs (4 N.C. / 4 N.O.)
- Event logging for video loss, motion detection, alarm input, alarm reset, power on/off
- Intelligent motion detection with programmable area and sensitivity for each camera
- Pre-alarm and post-alarm recording
- Radar search functions such as thumbnail video, motion and alarm
- VCR like play, reverse, step forward, step backward, and pause
- Fast retrieve recorded video either by time, date, location or alarm status
- Multiple password authorization for high degree of security
- Remote surveillance and control via TCP/IP, LAN, Web browser
- Able to set daylight saving time accordingly
- Encrypied transmission for data protection
- User friendly graphics design interface
- System auto recovery after power failure resumes recording operations
- Nonvolatile program memory protects all programmable features against power loss
- Playback Search by entering"Start time" and "end time"
- Recorded image can be printed by printer
- Support CD-R/W for additional storage and backup purposed
- Authentication watermark and time stamp

Specifications

Video format:	NTSC/EIA or PAL/CCIR (auto-sensing)
Video Input:	16 camera inputs with loop through (BNC), 1Vp-p / 75ohm
Video Output:	1 x VGA monitor output, D-Sub 15 pin 1 x S-Video monitor output, 1Vp-p / 75ohm 1 x BNC composite video output, 1Vp-p / 75ohm
Video Resolution:	352x240 (NTSC) ; 352x288 (PAL)
Call Monitor:	1 x BNC composite video output, 1Vp-p / 75ohm
Video Compression:	JPEG and MPEG-1
Hard Disk Storage:	Up to 18 sets hot swappable HDD, 3.5" half height IDE
Floppy Disk Drive:	Built-in
CompactFlash Memory:	24 MB
Alarm Input:	24 inputs (N.C., N.O.)
Alarm Output:	8 outputs (4 N.C., 4 N.O.)
Motion Detection:	Yes, 16 (width) x 12 (height) matrix per camera
Video Loss Detection:	Yes
Event Log:	Yes
Recording Mode:	Continuous, Time-lapse recording, Event recording
Recording Rate:	Up to 60 pictures per second for NTSC
Playback Search:	Date/time, HDD, alarm, motion search
Setup:	On screen setup

User Interface:	Graphic user interface
User Input Device:	Mouse (Default) and Keyboard (Optional)
Title:	10-character title generator for each camera
Sequential Switch:	Programmable, with adjustable dwell time
Watch Dog Timer:	Yes
Security:	Multi-level password protection
System Protection:	Auto power on after power loss recovery
Remote access:	Internet Explorer / Netscape with JAVA support
Network protocol:	HTTP, SMTP, TCP/IP, ICMP, ARP
Network Interface card:	Fast ethernet, 10/100Mbps (RJ45 connector x 1)
Expansion Ports:	USB, Parallel, Com Ports x 2, PS 2 Mouse, PS 2 Keyboard
Power Source:	115 / 230 VAC±10%, 60 / 50 Hz, AC2.6 Amp.
Power Consumption:	150W
Dimension:	426(W) x 480(D) x 176(H)mm
Weight:	21kg.
Operation Temperature:	0°C~+45°C

Ordering Information:

EDR1602A	160GB, 60fps, Triplex, with TCP/IP connection
EDR1602D	320GB, 60fps, Triplex, with TCP/IP connection
EDR1602E	600GB, 60fps,Triplex, with TCP/IP connection
EDR1604Z	160GB, 60fps, Triplex, with TCP/IP with CDRW
EDR1604A	320GB 60fps, Triplex, with TCP/IP with CDRW
EDR1604B	600GB, 60fps,Triplex, with TCP/IP with CDRW

PowerPlex EDA800

Disk Array

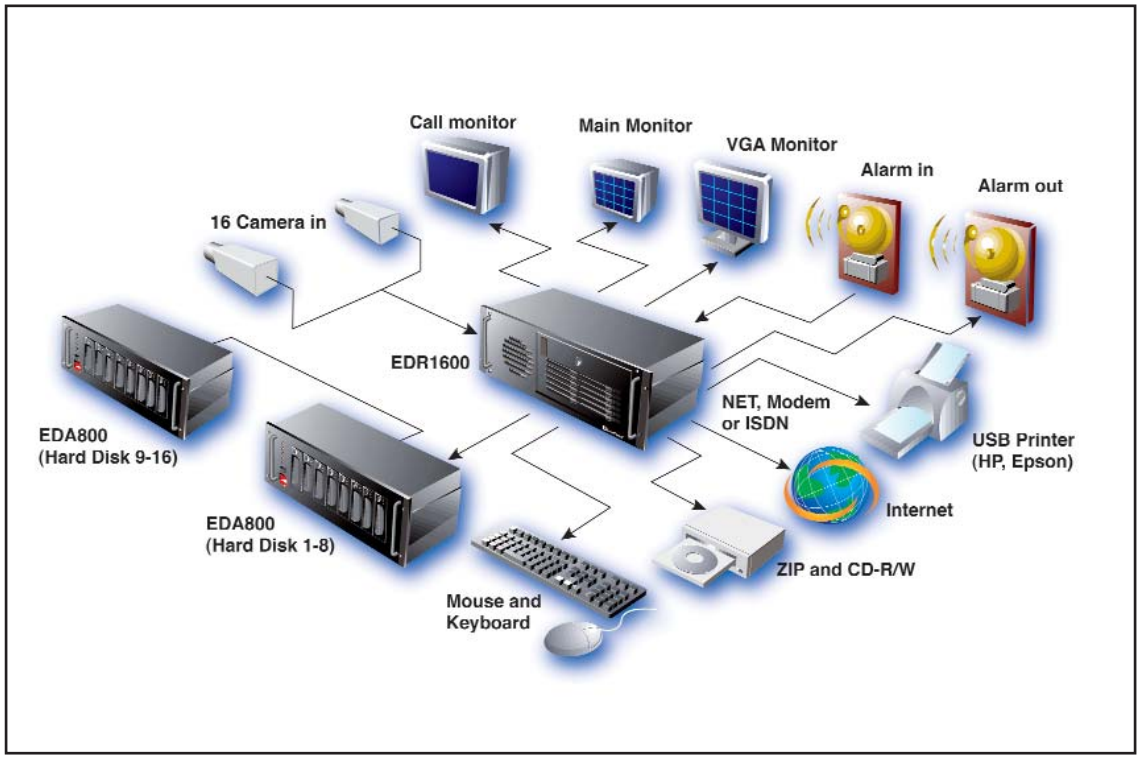
Specifications

Disk Slots:	8
System:	HDD hot-swapping
Power Source:	115V or 230V±10% switchable, 2.6 Amp.
Power Consumption:	300W
Dimension:	426(W) x 176(H) x 480(D)mm
Weight:	22kg.
Operation Temperature:	0°C~45°C

Ordering Information:

EDA-800/4	Hot-swappable, 3.5" IDE disk array, 320GB
EDA-800/8	Hot-swappable, 3.5" IDE disk array, 640GB

System Connecting



PowerPlex eDR1680

16 Channel Real-time Digital Video Recorder

Features

- 16 CH Real-Time DVR
- Quadruple operation: recording, live, playback, & remote viewing
- 16 color and/or B/W camera inputs (NTSC/PAL)
- MPEG-4 compression with resolution up to 720x480 (NTSC) / 720x576 (PAL)
- Real time recording (up to 25/30 pictures) per channel
- Real time live display (up to 25/30 pictures) per channel
- Real time playback (up to 25/30 pictures) per channel
- 16/13/10/9/7/4 windows or full-screen display
- 4 audio inputs, 1 audio output.
- Synchronized video & audio
- Video/audio storage in 1 built-in IDE HDD, 1 hot swappable IDE HDD.
- Programmable storage for highest surveillance availability.
- 1 IDE CD/RW for video/audio backup
- Non-editable video/audio data
- Motion detection with programmable area and sensitivity for each camera
- Alarm processor with configurable triggering conditions and reactions
- Alarm history log for video loss, motion, alarm input, etc.
- Pre-record time: up to 10 seconds (160/80 MB memory needed)
- Sophisticated PTZ control functions, including pan, auto pan, tilt, zoom, focus, speed, preset locations, sequence, etc.
- RS232 ports for modem connection and PTZ control
- Optional SCSI connector for additional backup devices
- Ethernet connector for internet/intranet access
- Remote alarm notification via e-mail, dial-out, etc.
- Internet WEB server capability
- Active-X support for third-party software integration & networking CCTV applications
- Multi-level password to ensure high degree of security
- Multi-lingual support
- TV monitor out and VGA monitor out
- Call (spot) monitor out
- Front panel LCD & LEDs
- Input devices: Keypad & Jog-shuttle, and I/R remote controller (1 I/R remote controller can control up to 4 eDRs)
- Built-in Compact Flash, power off data protection, power on and run
- Built-in RTC
- Hardware WDT

Specifications

Video Format:	NTSC/EIA or PAL/CCIR, DIP switch selectable
Video Input:	16 camera inputs, 1Vp-p/75ohm
Video Loop-through:	16 camera loop-through outputs, 1Vp-p/75ohm
Video Output:	**Main Monitor** 1 BNC composite video output, 1Vp-p/75ohm 1 mini-din S-video output, 1Vp-p/75ohm 1 D-SUB 15-pin computer monitor output **Call Monitor** 1 BNC composite video output, 1Vp-p/75ohm
Video Compression:	MPEG-4
Video Resolution:	Up to 720x480 (NTSC) or 720x576 (PAL)
Video Display:	1/4/7/9/10/13/16 video windows, 16 million colors
Display Resolution:	640x480 for NTSC, 800x600 for PAL
Video Freeze:	Yes
Sequential Switch:	Programmable, with adjustable dwell time (5-100 seconds)
Audio Input:	4, synchronized with video 1-4 respectively
Audio Output:	1, different audio channels can be mixed together
Total Recording Fram Rate:	480 FPS
Alarm Input:	16 inputs, Contact or TTL/CMOS singal, polarity selectable
Alarm Output:	4 normally open, 4 normally closed relay outputs
Hard Disk Storage:	Up to 2 sets of Hard Disks: one non-removable, one hot swappable
Hard Disk Type:	IDE Type, 3.5" half height
Backup Device:	1 set of IDE type CD/RW for video/audio backup
Recording Rate:	Up to 30 pictures (NTSC) or 25 pictures (PAL) per camera
Pre-record Time:	Up to 10 seconds
Live Display Rate:	Up to 30 pictures (NTSC) or 25 pictures (PAL) per camera
Playback Rate:	Up to 30 pictures for NTSC, 25 pictures for PAL per camera

Ethernet:	1 RJ-45 connector for internet/intranet connection
SCSI:	Optional connector for backup devices (reserved)
RS-232:	2 DB-9 male connectors, 1 for modem connection, 1 for PTZ control
PTZ Control:	Support famous brand of PTZ cameras
Active-X Support:	Video/audio, alarm inputs, alarm outputs, etc.
Remote Alarm Notification:	Yes, e-mail, dial-out, etc.
Motion Detection:	Yes, with configurable detection area (16x12) & sensitivity
Video Loss Detection:	Yes
Event Log:	Yes
User Interface:	OSD menu driven
Front Panel LCD:	Alarm message, HDD status, system action, time
Front Panel LED:	Power, link, traffic, HDD active 1, HDD active 2
Front Panel ID switch:	For I/R remote control
Setup:	On screen setup
User Input Device:	Keypad & jog-shuttle, and/or IR remote controller, 1 I/R remote controller can control up to 4 eDRs
Language:	Multi-lingual, including English, German, Spanish, Chinese,Japanses, etc.
Buzzer:	Yes
Timer:	Built-in real time clock
Watch Dog Timer:	Yes
Title:	10-character title generator for each camera, alarm input, and alarm output
Flash Memory:	64 MB
Security:	Multi-level password protection
System Recovery:	Auto power on after power loss recovery
Power Source:	110V/220V AC ±10%, selectable
Dimension:	430(W)x88(H)x300(D)mm
Weight:	5.2 kgs
Operating Temperature:	0°C ~ +40°C

Mounting Bracket

Mounting Bracket

BA-01 BA-03 BA-05 EBA-01 EBA-02

Model No.	Description
BA-01	Mounting bracket, Aluminum, 155 mm H.x 45 mm O.D. Max Load 3 kgs
BA-03	Mounting bracket, Plastic, 155 mm H.x 89 mm O.D. Max Load 3.5 kgs
BA-05	Mounting bracket,Aluminum, 126mm H x 45 mm O.D.,Max Load 10 kgs
EBA-01	Mounting bracket,Steel, 137.5mm H x 119 mm O.D.,Max Load 5 kgs
EBA-02	Mounting bracket,Steel, 257.5mm H x 119 mm O.D.,Max Load 5 kgs

Camera Housing

Camera Housing

FH-7153

Model No.	Description
FH-7153	Outdoor Camera Housing with movable top and lock, Aluminum, 113(W)x106(H)x352(D)mm
FH-7153H	Outdoor Camera Housing with movable top and lock, Aluminum, with heater 113(W)x106(H)x352(D)mm
FH-7153HB	Outdoor Camera Housing with movable top and lock, Aluminum, with heater and blower, 113(W)x106(H)x352(D)mm

EP028A

Auto Switcher with alarm

Specifications

Product name:	8 Channel Auto Switcher with Alarm
Video input:	8 Channel,0.5Vp-p to 2.0Vp-p
Video output:	2 Channel,0.5Vp-p to 2.0Vp-p
Impedance:	75ohm
Bandwidth:	20Mhz
Dimension(WxDxH):	220x220x46mm
Weight:	N.W./G.W. : 1.6kg/1.9kg
Power source:	AC110V/50Hz
Power consumption:	3W
Operating temperature:	0°C to + 50°C

Accessories

Adaptor/Vido Coaxial Cable Teaster

AD-1 AD-1T AD-2F WCT600

Model No.	Description
AD-1	Power Supply 110V 500mA, DC 12V
AD-1T	Power Supply 110V 300mA, DC 12V
AD-2F	Power Supply 110V 500mA, AC 24V
WCT600	Video Coaxial Cable Tester

Peripherals

EN200/EN220

5.6” Color TFT-LCD Monitor/Service Kit

Specifications

Screen size:	5.6 inch, 116 (H) x 87 (V) mm.
Active area:	111.36 (H) x 83.2 (V) mm.
Drive system:	A-Si TFT active matrix
Screen color:	16 million ture color
Dot matrix:	320 (H) x RGB x 240 (V) dots
Dot pitch:	0.116 (H) x 0.348 (V)
Overall dimension:	162 (H) x 133 (V) x 54 (D)
Contract ratio:	85:1
Luminosity:	270 cd/m2
Sound output:	200mW x build in 4cm speaker 1 piece
Input terminals:	Power input, Video input, Audio input.
Power consumption:	DC 12V/600mA, 8W (MAX)
Power input:	DC 9V~20V, pin 2.0 ø
Video input:	0.75 Vp-p~1Vp-p, pin 3.5 ø
Audio input:	50mV. (min), Stereo in, pin 3.5 ø
Audio output:	Built-in 4cm, 200mW speaker, stereo earphone
Gain control:	Brightness, contrast, color and volume adjustment
Service kit:	Bag, rechargeable battery, power supply, and cables for EN200
Stereo output:	Ear phone, pin 3.5 ø
Screen Display:	Reverse/Normal switchable (R↔N)
Operating temperature:	0°C~ +60°C

Ordering Information:

EN200	5.6” LCD monitor
EN220	5.6” LCD monitor kit (includes monitor, pouch and battery pack)

CCTV Lenses

CCTV Lenses

Model No.	Description
EFV-358	vari-focal 3.5~8.0 manual iris
EFV-358DC	vari-focal 3.5~8.0 auto iris
EFV-515	vari-focal 5~15 manual iris
EFV-515DC	vari-focal 5~15 auto iris
EFV-550	vari-focal 5~50 manual iris
EFV-550DC	vari-focal 5~50 auto iris
FL-2520	2.5mm Lens
FL-3620	3.6mm Lens
FL-3720	3.7 Pinhole Lens
FL-4320	4.3mm Lens
FL-5535	5.5 Pinhole Lens
FL-6020	6.0mm Lens
FL-8020	8.0mm Lens
FL-1220	12.0mm Lens
FL-1620	16.0mm Lens

PowerCon Family

PowerCon Station (EDR-PCS)

PowerCon 3.1 PRO Software

PowerCon 3.1 Software

EPS-PP1 Pocket PowerCon

PowerCon Station (EDR-PCS)

The EDR-PCS PowerCon Station is a powerful tool for remote video management of the EverFocus Digital Video Recording Systems eDR400 and eDR1602/1604. Used in conjunction with these systems,remote managers can view live and recorded video, remotely configure settings, remotely archive video to a hard drive,CD-R,CD-RW, or DVD-R and print images using a network printer. Recorded images can be evaluated in detail using a digital zoom feature and 0.5x to 5x playback speeds.

PowerCon 3.1 PRO Software

Next to the PowerCon Station which is supplied with complete hard- and software, PowerCon 3.1 Pro is a plain software solution, equipped with almost the same features as PowerCon Station EPS-3000, the only exception is the Email client which is an additional component of PowerCon Station. If an existing Windows XP based PC is supposed to be used for eDR and EDSR remote control and configuration, PowerCon 3.1 Pro is the best choice.

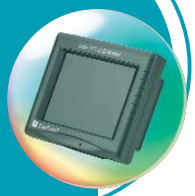
PowerCon 3.1 Software

The PowerCon 3.1 software can be regarded as the first remote configuration tool provided for eDR and EDSR digital recording systems. Offering the basic features of the PowerCon system, this software is available as free download on www.everfocus.com.tw.

EPS-PP1 Pocket PowerCon

Pocket PowerCon PDA (Personal Digital Assistant) EPS-PP1 allows the remote and wireless monitoring of eDR400 and eDR1600 videostreams.

- The PDA's wireless technologies such as Bluetooth and WLAN can be fully utilized when wireless LAN connection is available.
- The PDA can be expanded with GPRS module to access DVR systems via Internet.
- The PDA can be used as an alarm sever to send acoustic signals and display alarm images with detailed information such as data, time and camera numbers.
- All installed cameras can be chosen in either live or playback mode.
- In live mode, the eDR output contacts can be switched.
- In playback mode, all custom VCR functions are on hand.



PowerCon Family Overview

	PowerCon Station(EDR-PCS)	PowerCon 3.1 Pro	PowerCon 3.1	Pocket PowerCon EPS-PP1
Remote configuration eDR series	x	x	x	
Live/Playback eDR series	x	x	x	x
Live/Playback EDSR series	x	x	x	
Full screen	x	x	x	x
4-Screen	x	x	x	
7-Screen	x	x		
9-Screen	x	x		
10-Screen	x	x		
13-Screen	x	x		
16-Screen	x	x		
Global views	x	x		
Remote printout	x	x	x	
Remote image export	x	x	x	
Remote recording	x	x	x	
HDD player eDR series	x	x		
Network alarm management	x	x		
Network alarm reception	x	x		
Mediaplayer with zoom function	x	x		x
Webupdate	x	x		
User management	x	x	x	
Email client	x		x	
Multilingual	x	x		EN/DE
USB key	x	x	x	

CCD Camera Icon Support Table

COLOR	Color Camera	F.L	Flickerless
B/W	Black and white Camera	AWB	Auto white balance
ES	Electronics shutter	L.L.	Line lock
A.I.	Auto iris	AC/DC	Power source
BLC	Black light comp.	AC	Power source
AGC	Auto gain control	DC	Power source
Sync.	Sync mode	MIC	Microphone

PURCHASE ORDER

Vendor

EVERFOCUS ELECTRONICS, CORP.
2445 Huntington Drive
San Marino, CA 91108
Phone: 626-844-8888
Fax: 626-844-8838

Ship To

Date	Ship Via	Account No.	Terms Net 30

Quantity	Item	Description	Unit Cost	Extension
			Total	$

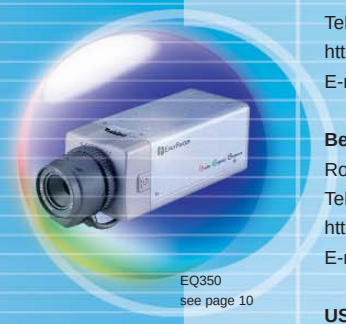
Authorized Signature: _____

Memo

Memo

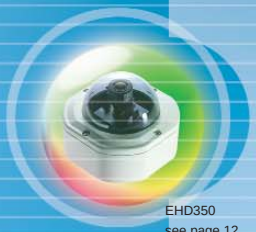
All features and specifications subject to change without prior notice.
©2004 by EverFocus Electronics Corp. Reproduction in whole or in part without written permission is prohibited. All right reserved. 2004 first edition.

EDSR1600
see page 26



EQ350
see page 10

EDSR400H
see page 23



EHD350
see page 12

EverFocus Electronics Corp.

Head Office:
12F, No. 79, Sec. 1, Shin-Tai Wu Road, Hsi-Chi, Taipei Hsien, Taiwan
Tel: 886-2-2698-2334 Fax: 886-2-2698-2380
http://www.everfocus.com.tw
E-mail: marketing@everfocus.com.tw

Beijing Office:
Room 609, Technology Trade Building, Shangdi, Haidian, Beijing, China
Tel: 86-10-62973336/37/38/39 Fax: 86-10-62971423
http://www.everfocus.com.cn
E-mail: marketing@everfocus.com.cn

USA Office:
2445 Huntington Drive, San Marino, CA 91108, U.S.A.
Tel: 1-626-844-8888 Fax: 1-626-844-8838
http://www.everfocus.com
E-mail: sales@everfocus.com

European Office:
Albert-Einstein-Strasse 1, D-46446 Emmerich, German
Tel: 49-2822-9394-0 Fax: 49-2822-939495
http://www.everfocus.de
E-mail: info@everfocus.de

Japan Office:
1809 WBG Maribu East 18F, 2-6 Nakase, Mihama-ku,
Capitalize City 261-7118, Japan
Tel: 81-43-212-8188 Fax: 81-43-297-0081
http://www.everfocus.jp
E-mail:sales@everfocus.jp